

ARM Manus Research Station

Site Visit 0501M Report

Visit Duration: 18 January to 24 January 2005

Manus Island, Papua New Guinea

SV-0501M

Site:	Proposed Dates on Site: 18Jan05 - 24Jan05
Team Members: Troy Culgan	Ship or hand carry prior to SV: ORG-815, H2Gen repair parts, MPL laser diode module
	Safety: Major Hazards: Caustic chemicals(KOH), Explosive gas(H2), AC electricity. Hazard Controls: BOM Electrolyser Handbook, BM Electrolyzer Operations/Maintenance Training, ASNZS 4836/2001-Safe Working on LV Electrical Installations, 2 man rule.

Site Tasks

Priority	System	Date Completed (dd/Month)	Service Time in Hours	Tasks/Assoc Hazards-Controls <small>For each priority item insert new line(row) for each date/time entry</small>
1	H2GEN			Repair H2GEN
		20/01	6	Replaced CB 1 and two fuses ifor saturation transformer. Electrolyser was operational for approx 3 hours and has failed under test. Fault appears to be heat related as the unit was operable after it had cooled.
		21/1	4	Replaced six diodes in diode stack for electrolyser rectifier, believe diodes had become heat stressed when unit failed. System now operational and have advised Hymson to return to use of electrolyser gas.
2	MPL			Change out laser diode module
		20/01	2	Laser diode module changed out at 0700 utc 20 Jan, operation to be verified by Albert Mendoza. Current set at 1.23
		21/01		Reference: Facility Contact WorkSheet (CS-2005-0056)
3	ORG			Change out ORG
		20/01	1	ORG changed out at 13:30 local time, Rex will update the SMET file on loggernet when Manus connectivity is stable
		21/01	0.5	Reference: Facility Contact WorkSheet (CS-2005-0055)
4	GENSET			Inspect battery charger unit and replace it if necessary
		21/01	1	Battery Charger appears to operating correctly
5	GENSET			Inspect for oil usage
		21/01	1	Check for oil leaks, no significant leaks found. Photos of genset taken and will forward to Hasting Deering Brisbane upon return to Darwin
6	GENSET			Perform 250-hour maintenance
7	SAM			Replace laptop battery
		21/01	1	Battery replaced
8	MMCR			Change out antenna heater filters and TWTA desiccant

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		22/01	1	Change out antenna heater filters and TWTA desiccant completed
9	MMCR			Perform maintenance checks
		22/01	1	Maintenance checks complete
10	MPL			Change out shutter timer batteries (AA)
11	MPL			Perform maintenance checks
		23/01	1	Maintenance checks complete
12	MWR			Perform maintenance checks
		23/01	1	Maintenance checks complete
13	POWER			Check DC power battery connections
		22/01	0.5	Battery connections clean and secure
14	WSI			Perform maintenance checks
				Inclement weather
15	WSI			Change out desiccant in camera housing
				Inclement weather
16	TRK			Apply rust and sieze protection
				Inclement weather
17	TRK			Grease Azimuth & Zenith Worm Gear Drives - Use Aero Shell #17
				Inclement weather
18	VAN			Check for rust and dehumidifier operations and draining
		23/01	1	general site inspection all correct
19	ES&H			Check defibrillator, smoke alarms, emergency lights and fire extinguishers
		22/01	1	All ES&H equipment checked and correct
20	ES&H			Change out U-Van and balloon barn eye wash
		23/01	1	eyewash changed
21	SAT			Check battery connections and antenna connections
		23/01	1	Check and correct
22	SAT			Check charge on Iridium hand held SAT phone
		20/01		Phone charged and operational
23	VOIP			Check operations
		21/01	1	VOIP operations checked
24	SHIPPING			List items to be shipped following visit
		22/01		MPL Laser Diode supply (WD36048)
25	FUTURE NEEDS			List items needed for future visits (spares, etc.)
		22/01		Replacement batteries for PA11 Barometer
				Fendall eyewash concentrate
26	AWS	23/01		AWIB to be replaced
			1	AWIB replaced and weather information broadcast restored